MGS DATA PROCESSING SERVICES

A 5 YEAR PLAN

ABOUT INPUT

THE COMPANY

INPUT provides planning information, analysis, and recommendations to managers and executives in the information processing industries. Through market research, technology forecasting, and competitive analysis, INPUT supp
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of computers, comm
products and services

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MGS DATA PROCESSING SERVICES
A 5 YEAR PLAN
PHASE 5

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I. INTRODUCTION

I. INTRODUCTION

- This report marks the end of the market research and planning project commissioned in March 1980.

- The project has been conducted in five discrete phases, each with a specific and progressive purpose:

  - Phase 1: UK market trends and forecasts for computer processing services in the period 1980-1984.

  - Phase 2: Assessment of the market potential of MGS's staff experience, program products, services and computer and communications resources.

  - Phase 3: Relate MGS's latest market potential with market trends and forecasts to derive a trial range of products and services.

  - Phase 4: Market survey among potential users of the trial range of products and services to assess potential demand.

  - Phase 5: Production of a marketing and sales plan for the period 1980-1984 based on output from Phases 1 to 4.

- The Phase 5 report falls short of a full business plan due to the non availability at this time of an accounting structure for external business profit centre accounting. Consequently best estimates have been made of profitability; all assumptions are stated.

The consultants involved throughout this project, R.V. Nathan and J.N. Chapple, are grateful for the cooperation and assistance received from MGS staff. In particular the efforts of P. Kenwright, the project coordinator have been especially appreciated.

A presentation of the main findings of the project was given to the MGS management team on Monday, 4th August, 1980.

II. SUMMARY

II. SUMMARY

- The recommended plan for the period 1980 to 1984 will produce £4.25 m in external revenue in the fifth year; at this point in the development of MGS's total business internal and external revenues will be approximately equal.

- The growth in MGS's revenue will increase the present 0.35% share of the Southern England and East Midlands markets to 1.3% in 1984.

- The recommended plan sets the best course for the decade. Whilst current bureau services could sustain reasonable business growth until 1984, long term growth will depend on services which meet the increasing desire of users to acquire hardware and operate their computer system directly.

- The range of services which will contribute to the sustained growth of MGS's business are:

  - Interactive
  - Raw Time/Wholesaling/Back-Up
  - Database/Information Retrieval
  - Turnkey
  - User Site Hardware Services (USHS)

- MGS should remain vigilent on the subject of acquisition. Acquisitions are most effective when they are an integral part of overall market strategy.

Selectivity to this degree requires constant awareness of computer services companies and the will to act opportunistically.

- Marketing effort should be primarily directed in the 1980-1984 period to a limited number of market areas. These are defined by industry sector as follows:

  - Food, Drink and Tobacco
  - Wholesale/Distribution
  - Construction
  - Business Services
  - Retail/Mail Order

- In terms of products, services and applications the main offerings will be:

  - Interactive services, particularly for the Food, Drink and Tobacco, Construction and Business Service sectors; services will be mostly for program development or problem solving based on standard software packages for technical and financial planning applications.

  - Raw Time services in both interactive and batch mode for all industry sectors. Coverage on revenue growth will be gained from wholesaling to other bureaux ('bureau wholesaling'). In addition to the processing of customer developed applications, the service will be provided for peak load relief, program conversion/development and disaster back-up.

  - Database/Information Retrieval services for high volume/large user group accounts. Subject areas will be determined by the database (or databank) hosted or acquired. Currently bibliographic database services would be based on the use of the Assassin package (within known

marketing constraints). Databanks (in numerical data) would require more specialised database management software than ASSASSIN.

- Turnkey Systems, initially for retail mail order; the family of applications covered during the 1980-1984 period should limited to purchase ledger, sales ledger, nominal ledger, order processing and stock control.

- USHS systems, initially for construction site accounting and central project management; these systems will be compatible with Turnkey systems and will be increasingly overlap for on site applications.

- Planned profit levels are:

  - Interactive, Raw Time, Database Services: 10%-15%

  - Turnkey: 20%-30%

  - USHS: 15%-25%

- If the recommended plan is to be achieved, the organisation of and accounting for external services must be developed.

- Organisationally a separate marketing and sales group should be installed as soon as possible.

- External services should be accounted for as a separate profit centre which fully costs all activities. Profit should be measured by type of service and by product.

- The proposed organisation structure is comprised of profit centres to which all costs are transferred. The profit centes as production units will in addition to directly generated costs be cross charged by the cost centres, namely sales, administration, operations and engineering.

- The engineering cost centre should be created to perform a vital function; this applies particularly for Turnkey and USHS business in minimising development and installation costs by developing a standard interlocking product approach.

- Staff numbers in marketing, sales and support functions are planned to increase from 10 in 1980 to 48 in 1984.

- Sales of Turnkey and USHS systems will be assisted by the availability of easy payment packages such as leasing and rental schemes.

III. RATIONALE & MARKET STRATEGY

III RATIONALE & MARKET STRATEGY

A. BACKGROUND RATIONALE

- The Phase IV report showed that certain of the shortlisted primary and secondary industry sectors were more attractive than others, the most attractive being:

  - Fabricated Metal
  - Food, Drink and Tobacco
  - Wholesale
  - Retail
  - Construction
  - Business Services

- Of these, the Fabricated Metal sector was not selected for further specific development. Although, it is a good prospective market for Turnkey and bureau financial accounting systems; bureau accounts are usually small and turnkey 'specialities' inevitably have small market prospects in what is an amorphous industry sector consisting of many speciality enterprises.

- The Food, Drink and Tobacco sector is in general a good prospect for all types of product or service.

EXHIBIT III-1

PRODUCTS/SERVICES AND INDUSTRY SECTORS

PRODUCT/SERVICE	Food, Drink & Tobacco	Wholesale	Construction	Business Services	Retail/Mail Order	Cross Industry
Turnkey Systems		X	X		X	
User Site Hardware Services			X		X	
Interactive	X		X	X		X
Database/I.R.	X		X		X	X
Raw Time/Back Up	X			X		X

- It will be necessary to focus development efforts in Turnkey and USHS products in narrow vertical market specialities. Food, Drink and Tobacco is not a recommended market for Turnkey or USHS products, in the Phase 4 report.

- Exhibit III-1 shows a cross-tabulation of industry sectors against shortlisted products/services.

- Turnkey systems can develop into USHS contracts as client requirements expand. Further along in the evolution it is apparent that USHS services can also become turnkey services simply by transferring directly associated mainframe applications to the on-site computer (and upgrading it if necessary). This type of flexibility can be offered as a unique selling point in the recommended vertical markets (Construction and Mail Order).

- Interactive services are likely to be of interest in all sectors shown in Exhibit III-1 except Mail Order and Wholesale. These two sectors really need user site hardware for data entry and real-time stock processing. The mail order sector also has a mainframe requirement for customer name and address file maintenance and selective direct mailings on an infrequent but high volume basis.

- The Construction industry medium sized company needs both on-site accounting (with project/contract costing) and mainframe based technical computing support (PERT, stress analysis, bills of quantities, etc.)

- Database/IR opportunities are likely to arise at unpredictable times from sources which are either unpredictable or can only be identified in advance of invitations to bid by means of excellent market intelligence and active marketing in key prospect areas (e.g. Central Computer Agency to the civil service.)

- Raw Time/Back Up services should sell well in Food, Drink and Tobacco and Business Services. Since the product is essentially of a "cross industry" nature,

opportunities could arise from any sector. It is clear that IBM installation conversions present attractive short term markets in situations where machine time extra to available capacity is needed in advance of any new machine arrival. Market research geared to finding out installation upgrade dates could be a fruitful way to identify future prospects of this type.

B. FUTURE MARKET OVERVIEW

- Exhibit III-2 is reproduced from the Phase IV report with two corrections to AAGR (Average Annual Growth Rates). The AAGR for Interactive services now reads 25% and the AAGR for Raw Time/Back Up now reads 12 %.

- For several reasons, the most important future product for a service bureau is probably USHS. First, though insignificant at present, bureaux are developing a market for such services rapidly in order to avoid losing out to competition from Turnkey system vendors. Put simply, USHS is the Bureau answer to the Turnkey threat. It follows that almost any USHS product can also be offered on a pure Turnkey basis.

- The Turnkey systems market is growing more rapidly at 35% p.a. than any service in the bureau sector excepting USHS; the 75% growth rate forecast for USHS reflects the currently small market size rather than any superiority in potential market size when compared with turnkey. There is enormous psychological attraction to distributed on-site computer equipment which is being fuelled by the general unpopularity of group central DP operations. Users are in general deaf and blind to the post installation software maintenance problem that follows in the wake of Turnkey installations. A number of bureaux especially those which are financially secure will be offering Turnkey alternatives to their mainframe offerings simply to avoid losing their customer base.

EXHIBIT III-2

ATTRACTIVENESS OF SERVICES, APPLICATIONS AND INDUSTRIES

	1980/1984 MKT SIZE £'m	AAGR	Current Penetration	AV A/C Spend	Survival Key	Competi-itiveness	MGS Strength	DEV. INV.	HDCNT	Overall Rating
SERVICES										
Turnkey	4.8/15.9	35%	N.A.	N.A.	■	▨	■	□	▨	■
USHS	0.7/ 6.6	75%	N.A.	N.A.	■	■	■	□	□	■
Interactive	8.5/29.4	25%	N.A.	N.A.	□	□	▨	■	■	▨
Database/I.R.	3.2/12.3	40%	N.A.	N.A.	▨	▨	▨	▨	□	■
Raw Time/Back-Up	8.2/13.6	12%	N.A.	N.A.	□	□	■	■	□	■
APPLICATIONS										
Accounting/Ledgers	20.6/60.4	■	N.A.	▨	■	□	□	▨	N.A.	■
Ord.Proc./M.Ord/POS	14.8/38.6	▨	N.A.	▨	▨	▨	▨	□	N.A.	■
Inventory Control	13.3/34.6	□	N.A.	□	□	■	▨	□	N.A.	□
INDUSTRIES										
Food, Drink & Tobacco	N.A.	N.A.	■	■	N.A.	□	■	N.A.	N.A.	■
Wholesale	N.A.	N.A.	▨	□	N.A.	■	■	N.A.	N.A.	■
Retail	N.A.	N.A.	□	□	N.A.	▨	□	N.A.	N.A.	□
Transport & Comms.	N.A.	N.A.	□	▨	N.A.	■	▨	N.A.	N.A.	▨
Business Services	N.A.	N.A.	▨	▨	N.A.	▨	■	N.A.	N.A.	■
Construction	N.A.	N.A.	■	▨	N.A.	▨	□	N.A.	N.A.	■
Fab. Mtl. Manufacting	N.A.	N.A.	■	▨	N.A.	□	▨	N.A.	N.A.	□
Leisure	N.A.	N.A.	▨	▨	N.A.	▨	□	N.A.	N.A.	▨

Legend: ■ Attractive, ▨ Interesting, □ Unattractive.

- The Interactive market is the fastest growing part of bureau sector services (AAGR 25%) and it will remain almost twice the size of the Turnkey systems market through 1984. But the Turnkey market is growing faster at 35% AAGR and will impact severely on interactive service vendors who do not find a way of protecting their customer base against in-house time sharing systems provided on a Turnkey basis.

- Very rapid growth is expected for the Database sector. Growth at 40% AAGR must be dependant on entrepreneurial activities (new databases) and on large conversions of databases which already exist in clerical form (e.g. personnel records). Substantial opportunities will arise to provide host database processing services in this key growth sector.

- Raw Time/Back-Up services will continue to be a very large market sector and MGS will be able to maintain its share given its technical strength and up-to-date IBM hardware and software.

C. GENERAL OBJECTIVES

The following overall objectives provide the basis for future plans:

1. To develop a portfolio of products and services that will give a sales mix which will yield steady growth in external earnings through the 1980's.

2. To market products and services in industry sectors which are already receptive to EDP and which will provide sales revenues consistent with objective 1.

3. To concentrate sales efforts on a geographical market that can be reached easily from Slough. To follow up opportunities that arise along the MGS network 'path', to the Midlands but not to market actively in these areas (where prospects are relatively small).

4. To exploit the MGS strengths in the following areas of technology:

   - IBM mainframe hardware and software.

   - IBM based on-line program development.

   - User Site Hardware Services with on-line mainframe links.

   - Turnkey Systems based on Texas Instruments, DEC and IBM (GSD) products.

5. To exploit MGS affinity with applications in the Wholesale sector of industry (i.e. order processing, stock allocation and control, distribution).

6. To concentrate efforts on providing mainframe bureau based services that require low added value in terms of technical associate effort.

7. To concentrate available technical effort on the development of products essential to bureau survival in the second half of the 1980's - i.e. on Turnkey, USHS and Database/I.R. products and services.

8. To obtain a client account mix consisting of small, medium and large account sizes that will give reasonable revenue stability in terms of won/lost accounts in a changing market place.

9. To attain and hold a position among the top twenty in the league table of computer service bureaux through the second half of the 1980's.

10. To develop a market image in the computer industry that is well known and respected for 'value for money' based on quality staff using good technology and a lean overhead policy.

D. MARKET STRATEGY AND TACTICS

General

- The industries and product/service areas shortlisted in Phase 4 report provide a focus of concentration for the immediate future. Market strategy should be to refine and develop each market slot as specifically as possible by means of a further desk research, direct contacting and the use of marketing seminars. In short MGS should concentrate on a limited set of market areas.

- Acquire and develop a standard interlocking product methodology which will show genuine reductions in implementations costs and labour intensiveness as the number of contracts increase.

- Market opportunities will arise which do not fit in with the research findings and MGS strategy should be to pursue those which fit in with the objectives set in Sub-Section C above.

- The Food, Drink and Tobacco industry is of interest for products and services of all types shortlisted and the strategy should be to search for opportunities across the board in this sector. Since data processing is more developed in this market sector than many others, it should be the best market for the more sophisticated MGS products and for products needed by well developed installations (i.e. program development and conversion services on an interactive basis).

- Market strategy should be to concentrate in sectors other than Food, Drink and Tobacco on specific products and services (e.g. Wholesale sector order processing).

Contract Terms

- Flexibility in financing terms should be one of the features by which MGS can develop a market edge over smaller organisations. A strategy which will have strong appeal to first time users (e.g. USHS mail order systems) will be a low threshold investment in hardware. The typical Turnkey minicomputer system on say a DEC PDP 11/34 begins at a hardware price of about £25,000. Although leasing terms are invariably offered to minimise initial outgoings, the overall client commitment is still high. A terms package with a low threshold costs and low commitment (i.e. a rental deal) could be a distinct asset.

- Also to be considered from the user's viewpoint is the tax implication of bundling software costs into the Turnkey price where outright purchase is possible. This is attractive to users wishing to take advantage of first year capital allowances.

Public Relations and Advertising

- Some promotional expenditure should be budgeted as part of overall market strategy. A figure of some 1% of planned sales would be a reasonable sum to spend on a continuing basis, although the initial budget will need to be higher due to the one time design costs to develop a corporate house style and some standard promotional documentation general brochurees, proposal folders etc.).

- The budget for promotion should embrace the three key elements:

  - PR (press relations, corporate public relations and financial and product public relations).

- Advertising.

- Promotional Literature.

For PR activities there are very few organisations well equipped to handle the computer industry and the peculiarities of its special jargon. The choice here should be carefully conducted. It may be that a freelance computer industry PR specialist working for MGS on a part time basis will provide the best combination of skills. Editors of key computer press would be worth consulting for an independent view on this question.

PR strategy will need to move through several phases:

Phase 1	:	Establish market awareness of the MGS name as a substantial force in the bureau market with the backing of the MARS name behind it.
Phase 2	:	Obtain financial PR. Tell the market how big MGS is with interesting facts about its profile. Cultivate good press relations.
Phase 3	:	Establish corporate identity through key senior executives and company organisation structure.
Phase 4	:	Create a 'key spokesman' figure from within, by means of feature interviews and ghost written articles.
Phase 5	:	Develop product PR by interesting regular news about new technology, new applications a newsletter is a good vehicle for this purpose which will alos generate sales leads.

Phase 6 : Market PR. Continue to obtain Press coverage for views of new accounts, management changes etc.

- Advertising should be second in importance to PR because impartial press coverage is always the best type of publicity. Selective advertising should be used initially to re-inforce the corporate image (e.g. logo design) and to invite specific requests for information about products and services.

- Promotional literature will need to develop in parallel with advertising and PR. Gradually the corporate house style should be extended to cover all external documentation and if possible internal documentation.

Image

- MGS should win for itself a 'Marks & Spencer' image. That is to say, it should win for itself a reputation for cost effectiveness backed by top quality technical backing and good technology.

- Additionally an industry and application orientated approach should be projected through specially pitched documentation and promotional activity.

Selling

- MGS will need to increase the overall level of sales effort whilst being careful to choose a selling methodology and style consistent with its required image and the products it wishes to sell. The emphasis on low added value products and larger value accounts are two key factors to consider in the make up of the sales team.

- Be wary of client migration from traditional bureau services to in-house solutions; sufficient neglience in this respect will signal the right timing for proposing Turnkey or USHS alternatives from MGS.

Technology

- IBM technology will be the continuing basis for MGS technical strategy in the mainframe area.

- For Turnkey and USHS products, it is recommended that MGS should restrict their strategy to the existing vendors used (DEC, IBM, TEXAS). A choice between these vendors may have to be made so that a common technical strategy can be adopted for Turnkey/USHS development. This choice will be heavily influenced by the choice of financial accounting package selected, since this package shoul dbe suitable as a basis for either USHS or Turnkey applications.

IV. THE PLAN FOR EXPANSION

IV. THE PLAN FOR EXPANSION

A. THE ALTERNATIVES

- The rate at which it would be possible to increase MGS external revenue will not in the forecast period be restricted by market size. Currently MGS has a 0.35% share of the processing services market in the South and East Midlands; the most ambitious and achievable plan would not cause this market share to exceed 2%.

- The choice of the best revenue growth alternative for MGS depends largely on the following factors:

  - The ability and capacity of the management team places upper limits on growth, particularly in new ares of activity. With too little growth the team loses momentum; with too much growth the team becomes overloaded with consequent inefficiencies in control and planning.

  - Revenue growth in the computer services business continues to be strongly related to the number and quality of additional staff which can be recruited. Keeping those already employed is at least as important. The capacity of MGS's present accommodation places a further restriction on staff numbers growth in the short term.

  - Where good levels of profit (e.g. 15% on turnover before tax) are required growth will be limited accordingly, particularly if growth were to be funded from profit. Assuming investment funds are available from another source, the annual charges and repayment rate impact profit levels.

- Availability of adequate investment and the terms under which it is available are fundamental to growth in a high technology industry.

- Consideration of the 10 year market trends is vitally important when choosing the mix of services to be offered in the next five years. Survival throughout the 80's means choosing 'up' escalators now.

- Growth potential in the market place is realised to a great extent through the quality of the products and services being supplied. Excessive growth will cause quality standards to fall; in consequence it then becomes more difficult (and more expensive) to sell resulting in poorer growth and profits.

- Three alternatives were considered, each being evaluated with reference to the above revenue growth factors. The alternatives considered are referred to in 'Plan A', 'Plan B' and 'Plan C'.

- Plan A restricted MGS's market participation to Interactive, Raw Time and Database services. The growth achievable under this plan produces a revenue in 1984 which is 50% larger than that currently budgetted on a 'carry on as before' basis. The two plans compare as follows:

Year	Current Plan (£ M)	Plan A (£ M)
80	0.55	0.57
81	0.88	1.00
82	1.27	1.40
83	1.40	1.96
84	1.80	2.75

- 1980 prices are assumed in both the above plans and in the plans which follow.

- Plan A requires only modest investment in items such as additional interactive product software and commercially viable databases. Profit levels are potentially good in the short term.

- The threat to longer term growth and profit potential in Plan A is already apparent in the market place. This is the trend among end users to acquire, control and develop their computer systems directly - a trend known generally as distributed data processing. Long term growth can only be surely based on the provision of products and services to meet this need. Plan A does not do this and could only be considered as a short term expedient in the external services market.

B. 'PLAN B'

- The two types of service which address the distributed data processing trend are, Turnkey Systems and User Site Hardware Services (USHS). Both place a mini or micro based computer system under end user control to process applications for which the end user is directly and locally responsible. USHS provides additional file, processing and communications support through a data transmission link with a bureau. Plan B adds these two types of service to the three contained in Plan A. Exhibit IV-1 gives revenue figures by type of service for the five year period 1980 to 1984.

- The product strategies which will enable these growth rates for each type of service to be achieved are given in detail in Section VI. In summary:

  - Interactive is planned to grow at the market rate of 25% per annum.

  - Raw Time is planned to grow at twice the market rate due to enhancement with bureau wholesaling and user back up.

EXHIBIT IV-1

MGS REVENUE PLAN, 1980-1984 ('PLAN B')

YEAR		TYPE OF SERVICE					
		Interactive	Raw Time	Database	Turnkey	USHS*	REVENUE TOTALS (£ M)
80	EXISTING	0.06	0.34	-	-	-	0.57
	NEW	0.05	0.10	0.02	-	-	
81	EXISTING	0.05	0.28	-	-	-	1.00
	NEW	0.09	0.27	0.21	0.10	-	
82	EXISTING	0.04	0.22	-	-	-	1.80
	NEW	0.13	0.47	0.54	0.25	0.15	
83	EXISTING	0.03	0.17	-	-	-	2.81
	NEW	0.18	0.69	0.89	0.40	0.45	
84	EXISTING	0.02	0.11	-	-	-	4.25
	NEW	0.25	0.96	1.41	0.60	0.90	

* USHS revenue includes supporting central processing of £ 15K in 1982, £ 60K in 1983 and £ 200K in 1984. Also included is revenue gained from program development/product licensing of 15% of the onsite system price.

- Database, Turnkey and USHS are new ventures for which annual percentage growth rates are meaningless. Revenue growth has been planned after consideration of what is required to develop these services, estimated contract sizes and timescales.

- In all services it has been assumed that revenue accrues directly and in full immediately after the service has been provided. In the case of Turnkey and USHS in particular, no account has been taken of the recommended easy payment options.

- Turnkey contracts are assumed to have an average contract price of £40,000 in 1981 broken down as follows:

Hardware	40%
Systems Software	12%
Standard Applications Software	26%
Tailor-made Software	12%
Implementation	10%
	100%

- The rate of delivery of Turnkey Systems assuming contract values ranging between £25,000 and £50,000 is as follows:

1981	2-4
1982	5-10
1983	8-16
1984	12-24

- It should be assumed that the average competitive price per system over the period will decrease. This is illustrated in the following breakdown of USHS systems over the period:

	Number	Average Price
1982	3	£45,000
1983	9	£43,000
1984	18	£39,000

- The average competitive prices for Turnkey system over the period will decrease at a similar rate to that assumed for USHS.

- In addition to each USHS system installed on site, it is planned that there will be an additional £15,000 revenue per annum for support and central processing services. After allowing for past year revenues and some withering of early contracts the central service revenues are planned as follows:

1982	£15,000
1983	£60,000
1984	£200,000

- Revenue growth according to Plan B will increase MGS's share of the South and East Midlands bureau market from 0.35% in 1980 to 1.3% in 1984.

- Assuming that current plans for the Mars Group's internal business are achieved, then Plan B would result in the balance of internal and external revenues to be approximately 50/50 in 1984.

C. 'PLAN C'

- In INPUT's judgement Plan B represents the limit of revenue growth which could be achieved by purely organic growth. Any acquisition activity is assumed to be restricted to products, bureau wholesaling and marketing agreements.

- Acquisition in the major sense (i.e. acquisition of companies) will be required to increase growth beyond that defined in Plan B. A large number of the largest computer services companies have substantially enhanced their growth by this means; in the U.K. market some vendors have succeeded with this form of growth (e.g. UCSL) and others have failed (e.g. BOC Datasolve).

- Acquisition is by no means an easy step function in growth; indeed it is wise to limit the size of potential acquisition relative to the size of current and comparable business. Thus INPUT would not advise an acquisition by MGS which would increase its total revenue by more than one third. This assumes complete integration of management and accounts, and adoption by the acquired company of a unified MGS product and service range.

- Accordingly Plan C would potentially be capable of increasing Plan B revenues by 50% to 75%. Bearing in mind the timescales necessary for funding, negotiating and implementing acquisition it is unlikely that Plan C could be effective before 1982.

- Any acquisition strategy adopted by MGS should be an integral part of an overall market strategy. Specifically acquisitions must directly contribute in terms of products and services which fit the industry sectors, application areas and user groups being targeted.

- Plan C is by definition opportunistic; it should be regarded as a supplement to Plan B which can be invoked according to potential and relevance.

- Acquisition will be faster, and safer than organic growth in certain product and geographic areas. There are however pitfalls at every stage not least being the integration of the new and existing organisations. Inevitably the organisation structures, management styles, personnel policies and remuneration packages will differ. Such differences are rarely insurmountable; in the end what counts most is how enthusiastic the two sides are about the acquisition.

D. COSTING AND PROFITABILITY

- At the present time MGS does not fully load the costs specifically associated with external business. Instead costing is more along marginal costing lines. Of course this is appropriate as long as external business is seen as a means of offsetting the cost of the main activity in servicing internal users.

- Current approximations determine that the current profit level on external business when all costs, (equipment, operations staff, accommodation, telephones, sales effort, etc.) are allocated is in excess of 10%.

- The revenue plan being recommended (Plan B) will if achieved increase the percentage of external business to 50% of the total. As the financial significance of external business increases, a need will arise to establish a separate profit centre, for external sales. This need will be felt particularly as the investment cycle develops and as higher management becomes interested in the viability of the new thrust in the business of the Mars group.

- Initially, the definition of an adequate framework accounting for an external services profit centre will be difficult. This will apply particularly to cross charging for machine resources and staff time; apportionment of overheads is closer to conventional accounting practice.

- Within the external services profit centre it will be desirable to measure profitability at type of service and application/product level. This represents a further level of sophistication in accounting practice and will obviously increase the operating costs. In terms of management control the additional effort will be rewarded with increased decision making ability in the areas of pricing, investment, profitability and other factors relating to market development and financial results.

- The types of service for profit centre accounting purposes are:

- Interactive

- Raw Time/Batch

- Database/Information Retrieval

- Turnkey

- USHS

Future potential for the profitability of these services is discussed in a later sub-section.

Examples of application/product headings for accounting purposes are:

- Financial planning/analysis - interactive

- 'XYZ' company bureau wholesale account

- Patents database/information retrieval

- Hauliers accounts turnkey systems

- Mail order processing USHS system - onsite

E. POTENTIAL PROFITABILITY - CURRENT SERVICES EXTENDED

- The current services which are to be extended are :

  - Interactive

  - Raw Time

- Interactive services will be extended both by adding new software tools and packages and by creating an enhanced and discrete extension called:

  - Database/Information Retrieval

- There is no reason to expect that current profit levels in Interactive and Raw Time services will not be maintained. Indeed this is a minimum expectation; increased machine utilisation (particularly during offpeak periods), larger work volumes (economies of scale) and increasing standardisation and user self service should have a significantly beneficial effect on profitability.

- Additional profit leverage may be possible in the bureau wholesaling area of raw time sales. The potential volumes are likely to be an order of magnitude greater than normal single customer accounts.

- The profitability of bureau wholesaling is sensitive to the following factors on the negative side:

  - Amortised cost of acquiring the business (applies only when the bureau is acquired).

  - Replacement equipment installed at bureau site.

  - Discount on normal prices given to the bureau outlet.

And on the positive side:

- Low support cost per unit of revenue.

- Low sales cost after the initial search and contract negotiation phase.

- The Database/Information Retrieval service is expected to function as the existing Interactive service; broadly speaking, the previous comments on profitability will apply with two additional factors to be taken into account:

  - The cost of database acquisition is at the present time an unknown variable. Whilst the most costly option of building from raw data has been discarded, the cost of acquiring a computer readable database owned by an outside organisation may be considerable. The amortised cost of this will have a corresponding effect on profit level.

  - The spectrum of database retrieval users ranges from single user/small volume accounts up to large user group/large volume accounts. Whereas the former is best served by a cheap delivery vehicle such as the Prestel service, the latter is a more appropriate preserve for the envisaged MGS operation. Profitability will generally by proportional to account size given current computer and communication prices.

F. POTENTIAL PROFITABILITY - TURNKEY/USHS

- The distinction between Turnkey and USHS will be limited in MGS's approach. Essentially both services provide an on site mini or micro-computer configuration; there will also be a high degree of overlap in terms of applications and hardware. Both should be subject to the same form of profit accounting for the on site element.

- The central processing, communications, maintenance and other support functions included with USHS should be provided on the same basis as an Interactive service, Thus, this part of the service should be accounted for separately as a service with the Interactive services area. In this way profit trade offs between the on site and central element of USHS will not be able inadvertently to impact overall profitability.

- A summarised profit and loss projection for Turnkey systems is given in Exhibit IV-2. The assumptions which have been made are as follows:

  - Investment in software and development computers is written off in the year in which it is incurred. (Investment of this kind could be capitalised with consequent beneficial effect on the P/L Plan).

  - Staff costs including all direct items are £26,000 per annum for senior staff and £16,000 for the remaining staff. These costs have not been inflated over the forecast period and are considered to be average.

  - The planned annual sales total per salesman is £200,000 for all products except USHS with which £300,000 per year can be expected. A nine month delay between order taking and revenue earning is embedded.

  - Software maintenance is covered by half a man year per year. The staff involved would normally be seconded or made available from the software development group. Maintenance in this context is the elimination of bugs only. Improvements and developments will be covered under separate contracts; such post-installation revenue has not been included in the plan.

  - Installation and hardware costs are 10% and 40% of contract cost respectively. Contract cost is assumed to be revenue minus 15%.

EXHIBIT IV-2

SUMMARY PROFIT/LOSS PLAN - TURNKEY SYSTEMS

COSTS (£ k)	1980	1981	1982	1983	1984
Fixed/Investment					
Software investigation	4	4	4	4	4
Software acquisition	30	-	30	-	30
Adaption to specific req.	-	15	-	15	-
Development machines	20	-	15	-	-
Variable/Revenue Expenditure					
Selling	7	13	26	26	39
Software maintenance	-	8	8	8	8
Installation/training	-	9	21	34	51
Hardware	-	34	85	136	204
Sales promotion	5	10	10	10	10
Product engineering	7	13	13	13	13
Overheads	-	10	25	40	60
TOTAL COSTS	73	116	237	286	419
REVENUE	-	100	250	400	600
ANNUAL P/L	(73)	(16)	13	114	181
CUMULATIVE P/L	(73)	(89)	(76)	38	219

- Sales promotion (press releases, advertising, brochures, seminars etc.) is planned as one quarter of a man year per year plus expenditure on documentation and entertaining.

- Product engineering and standards is half a man year per year devoted to increasing re-usability and interlocking modularity of software with consequent benefits in reduced installation and maintenance costs.

- Overheads are assumed to be 10% of revenue.

- Sales entertaining is assumed to be included in the direct staff cost.

The cumulative level of profit at the end of the forecast period is 13.4%. After the initial start up costs are absorbed the profit level increases; in 1984 this is 30%. After 1984 the profit level should be planned with 20% as the minimum, higher levels being achieved only if investment in new products is curtailed.

A summarised profit and loss projection for USHS is given in Exhibit IV-3. The assumptions which have been made are the same as for Turnkey with the following additions:

- The cost of software investigation, acquisition and adaption includes on site and central software.

- After 1982 it is planned that each salesman can sell £300 k per year.

- Central processing costs are assumed to be 85% of the processing revenue.

The cumulative level of profitability is 8% after four years; it can be expected that the 13.5% level planned for Turnkey after five years could be achieved also with USHS.

EXHIBIT IV-3

SUMMARY PROFIT/LOSS PLAN - USHS

COSTS (£ k)	1980	1981	1982	1983	1984
Fixed/Investment					
Software investigation	-	5	5	5	5
Software acquisition	-	35	-	35	-
Adaption to specific req.	-	-	20	-	20
Development equipment	-	-	10	-	10
Variable/Revenue Expenditure					
Selling	-	18	39	52	52
Software maintenance	-	-	12	12	12
Installation/training	-	-	15	45	90
Hardware	-	-	45	130	240
Sales promotion	-	5	10	10	10
Product engineering	-	7	13	13	13
Central processing	-	-	13	50	170
Overheads	-	-	15	45	90
TOTAL COSTS	-	72	197	397	712
Revenue					
Central Processing	-	-	15	60	200
Central Programs	-	-	20	60	105
On site systems	-	-	115	330	595
TOTAL REVENUE	-	-	150	450	900
ANNUAL P/L	-	(72)	(47)	53	188
CUMULATIVE P/L	-	(72)	(119)	(66)	122

- Annual profitability after four years is 21%; this should be considered as a minimum level for succeeding years. Indeed the on site systems can be expected to show the same level of profitability as Turnkey systems. USHS profitability overall may be reduced by the less profitable central processing elements.

V. ORGANISATION AND STAFFING

V. ORGANISATION AND STAFFING

A. STRUCTURE FOR PROFIT AND GROWTH

- The plan for expansion of external services cannot succeed without appropriate adjustments in the structure of MGS.

- Changes in the organisational structure should reflect the major elements of the plan which are profit and growth.

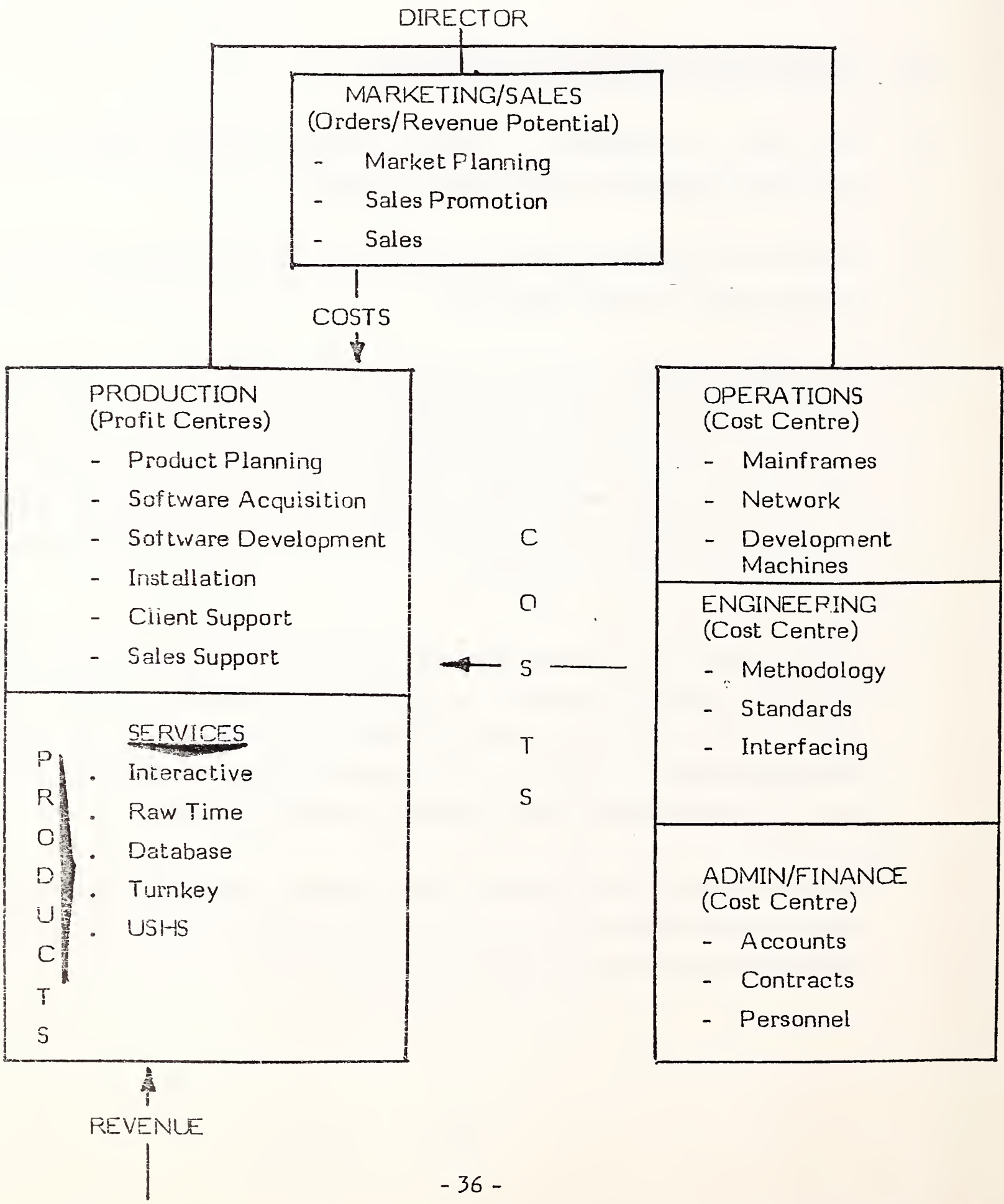
- All external business should be accounted for and managed as a separate profit centre. As already outlined profit should be measured by type of service and by product; each of these will require a nominated member of the management team to carry profit responsibility. One member of the management team may have responsibility for more than one profit area, for example a group of products within one type of service.

- Whilst competition between profit centres and their managers is desirable this should be monitored carefully to avoid harmful internal friction. The attention of profit centre managers should be diverted as little as possible from the external market place; for example, trading between profit centres must be less attractive without suppressing essential cooperation.

- The growth aspect of the expansion plan requires a marketing/sales group with sufficient selling capacity. The marketing/sales group needs to be fitted into the organisational structure in such a way that:

EXHIBIT V-1

MGS STRUCTURE FOR EXTERNAL BUSINESS



- Acceptable profit levels are achieved.

- Orders are fully converted to revenue.

- The structure illustrated in Exhibit V-1 depicts the marketing/sales group as a separate function from the profit centres. This is essential since salesmen will be assigned to specific accounts and must be capable of selling all services. Acceptable levels of profit can be assured by requiring all proposals to be signed off by the profit centres concerned. Furthermore marketing and selling costs must be registered in the accounts of profit centres so that all costs are fully transferred to the relevant service and product accounts.

- All costs generated by the operations, engineering and administration/finance groups must also be cross charged; apportionment of indirect costs such as overheads are included.

- Full conversion of orders to revenue is the prime responsibility of the profit centres. However there must be very active cooperation between the production and sales personnel concerned with each contract to ensure that the clients requirements are being fulfilled and any potential for further sales is pursued.

- The engineering group is vital for enabling products and services to realise full growth and profit potential. The followng tasks form the essential elements of the group's function:

  - Specification of design and programming methodology to be employed in the production of all software.

  - Specification of system documentation.

  - The issue and maintenance of a standard manual covering methodology and documentation.

- Selection of new hardware and systems software ensuring that compatibility and cost effectiveness is measured throughout the entire range of products and services.

- Specification of special purpose hardware and interfacing.

B. STAFFING REQUIREMENTS

- A sales and marketing manager should be appointed as soon as possible. He should be delegated complete responsibility for the market planning, sales promotion and sales activities. The success of this appointment is key to the achievement of the plan. In terms of security and remuneration this appointment is regarded as second only to the director.

- Approximately one third of the earnings of the sales and marketing manager should be in the form of commission when quota is achieved. The appointee must have had prior experience in both earning commission through selling and in operating commission and incentive schemes for salesmen.

- Sales promotion is an essential supporting function although difficult to measure in terms of specific sales. The person selected must have had a successful and productive involvement with press relations, document/brochure design, organisation of seminars and liaison with outside agents and contractors. A percentage of the total commission earned by the sales and marketing group should be defined as an incentive; this should amount to one quarter of earnings when the group achieves quota.

- Exhibit V-2 gives the year end staff numbers by category. In the case of salesmen the total is made up of two levels:

  - Level A: Senior salesmen assigned to large, prestigious and international accounts. Requires ability and experience in selling big contracts at high level; should also be creative and opportunistic.

  - Level B: Product salesmen assigned by geographical area; emphasis on straight selling ability and coverage.

EXHIBIT V-2

MARKETING/SALES STAFF REQUIREMENTS

FUNCTION	1980	1981	1982	1983	1984
Marketing Manager	1	1	1	1	1
Sales Promotion	1	1	2	2	2
Salesmen	2	5	7	10	15
Client Support	6	10	14	20	30

Approximately one half of earnings should be in on quota commission. Current competitive remuneration packages for good quality experienced salesmen would contain:

-	Basic salary:	Level A	£10K - £14K
		Level B	£ 8K - £12K
-	Car:	Level A	circa £7.5K
		Level B	circa £5K
-	Commission:	Level A	circa £12K on quota
		Level B	circa £10K on quota

VI. PRODUCT STRATEGIES

VI PRODUCT STRATEGIES

The following sub-sections develop an underlying approach for the development and marketing of these key products and services:

- Interactive Services
- Raw Time
- Database and Information Retrieval
- User Site Hardware
- Turnkey Systems

Each of these five areas is discussed under a number of headings:

- Product Definition
- Product Development/Acquisition
- Marketing
- Promotion
- Sales Skills
- Investment

- Pricing Terms
- MGS Strengths
- Timescale Considerations

A. INTERACTIVE SERVICES

1. PRODUCT DEFINITION

- The supply of IBM based Interactive services for:

  - Commercial Applications Development (Phase III-A1)

  - Conversion Support (Phase III-A3)

  - Financial Modelling (Phase III-B1)

- These are the three key services identified for further development. A range of other Interactive services will also be needed in the inventory to provide growth potential and a well balanced portfolio of tools for the interactive user. These are already available in most cases on the MGS network.

2. PRODUCT DEVELOPMENT/AXQUISITION

- A financial modelling package should be added to the inventory of porducts/-services. There is no point in choosing a product that is not a brand leader since, with a product such as FCS, much of themarketing spadework has already been done by COMSHARE and others. It should be possible to benefit from the existing market acceptability of a brand leader product.

- Tools for program development and conversion should be reviewed for possible gaps in the current substantial library.

3. MARKETING

- The target market for these services is easy to identify. Mostly it can be selected from Computer Users Yearbook. However, Financial Modelling is a special case since it will not nexessarily draw customers with an IBM orientation.

- Target customers for programming and conversion support will mainly be software houses and IBM users with in-house equipment. IBM users will be of all types and sizes but mainly with products from IBM's DP Division. Present accounts are few but large. The strategy should be to obtain a wider spread of medium size accounts to minimise the impact on sales targets of losing a single large accounts.

- Small accounts should be avoided due to disproportionate support costs.

- Sales effort should be concentrated initially within the local calling area for Post Office services.

- The strategy should be to build up a good base of market information about installation life cycles among the population of machines of interest. It should then be to persuade installation managers to use MGS peak load relief as a way of reducing costs - i.e. by deferring new hardware installation dates, or by buying power at better rates from MGS than the user can obtain elsewhere.

4. PROMOTION

- MGS should seek to establish itself with a corporate identity (see Pricing and Terms below) that fits its desired image. It should capitalise on its MARS connections since the MARS name enjoys considerable respect in the market place.

- A modest PR budget is needed, backed by some advertising to trade press likely to be read by prospective customers. The budger should allow for sales literature.

5. SALES SKILLS

- Selling interactive services on a large accounts basis to IBM users and sophisticated software houses is not a job for an ordinary time sharing salesman used to selling problem solving services.

- MGS will need sales personnel steeped in IBM jargon (OS, DOS, RJE, 3270, etc.) These personnel will need to be able to establish support at DP Manager level.

6. INVESTMENT

- Investment in a financial modelling package could be in the region of £20,000.

7. PRICING AND FINANCING

- MGS policy should continue to be middle market on price. The price image should be that of the "Marks & Spencer" rather than "Harrods" or "Tesco". MGS will wish to create an image of dependable quality of service at a sensible price backed by excellent technical support.

- No change is necessary on pricing policy although this should be subject to review when fully loaded costing and profit centre accounting are adopted.

8. MGS STRENGTHS

- The MARS name
- Pricing policy
- Technical expertise to support clients whom necessary
- Geographical position.

B. RAW TIME

1. PRODUCT DEFINITION

- Two key areas to develop are:
  - Bureau Wholesaling with RJE terminal links.
  - User Back-Up for mainly batch installations (370 series).
- Of less importance, but still relevant, is local time hire (unsupported service on site).

2. PRODUCT DEVELOPMENT/ACQUISITION

- The product appears to exist already. However it is not yet tangible. No documentation exists to describe exactly what the product is. Effort will be required to develop brochures/leaflets for both key products. The task of doing this will clarify the product definition and scope.

3. MARKETING

Retail and Wholesale Bureau Strategies

- The market does not generally recognise any difference between retail and wholesale operations in the computer bureau business. Such a market distinction can and should be created by MGS to provide a platform for the launching of Wholesale bureau services.

- The traditional Remote Batch RJE based service uses Data 100 or IBM 2780 type equipment (virtually no user site intelligence, but medium speed bulk data entry as well as printing on a user site basis). This is essentially Retail Data Processing (RDP). Wholesale Data Processing (WDP) is essentially the supply of mainframe power and software facilities to RDP sites.

- The development of markets for RDP and WDP during the 1980's will depend on creating a market awareness of the business case for each type of service in the same way that retail and wholesale businesses have evolved in other sectors of industry and commerce.

- The supplier of RDP services will be specialist in his own chosen market (specialist by industry, application or both). The provider of WDP services will be a specialist in the technology required by the RDP business.

- MGS should identify RDP prospects and obtain a share of the market for WDP, by acquiring the work load generated by other bureaux in RDP i.e. bureau wholesaling.

- A list of 20 small to medium size obsolete IBM bureau installations has been provided by INPUT. To this list should be added a number of user installations which could also be targets for bureau wholesaling. A search among the installation base in the Food, Drink and Tobacco Sector should be made for prospects. The market for bureau wholesaling is undoubtedly small, but there ought to be one or two sizeable account prospects in the south for this service. The attraction is that any such accounts will be reasonably large.

User Back-Up Services

- User back-up services to medium sized 370 series installations should be developed through the sales of peak load relief time. This non contentious area will lead to a development of marketing contacts/clients.

- These people will provide the entree for discussions later about disaster back-up support.

- MGS should discuss disaster back-up planning with one or two sophisticated installations to explore especially the machine and software compatibility and staffing implications of providing long term disaster relief (say 3 months). Discussions of this nature are the only way to obtain a full appreciation of the difficulties that would have to be overcome before providing disaster back-up to such installations.

4. PROMOTION

- The market for these services will be hard to define with desk research, although this would be an important starting point. Some PR/advertising in the computer trade press should be devised to create wider market awareness of MGS's services in this area.

5. SALES SKILLS

- The need is skills in IBM software and hardware sales with a 360/370 series orientation. The skills are likely to be found among 360/370 software and applications providers.

6. INVESTMENT

- No significant investment will be needed in technical terms. A small share of PR/Advertising budget should be allocated for brochures/leaflets, PR and Advertising.

7. PRICING/TERMS

- MGS should seek tariff details of TEAMCO's services. The best way to do this is probably to talk to one of Teamco's existing customers for the bureau wholesaling service. Again pricing for back-up needs to be checked as part of marketing activity. Quite a few companies do this on a no-charge reciprocal basis.

- Terms of payment could be an important selling point. Further market intelligence work is needed to find out what other bureaux are doing with a view to developing a more imaginative approach.

8. MGS STRENGTHS

- Key strengths are the MARS name, geopraphical location and quality of on site technical support.

C. DATABASE AND INFORMATION RETRIEVAL

1. PRODUCT DEFINITION

- The provision of host database processing services on IBM mainframe equipment with on-line access for information retrieval purposes.

2. PRODUCT DEVELOPMENT/ACQUISITION

- Each host database contract prospect is likely to involve creating a special database using a proprietary database product. The implications are therefore:

  - Whether MGS database software would be adequate for any host opportunity or whether new software would be needed.

  - How much effort would be needed to design and set up the actual database itself.

- Each opportunity would need to be the subject of a specific technical study.

- Acquisition would only arise if an existing database service operating on IBM equipment was considered interesting enough to be worth acquiring. MGS management does not see acquisitions as a very attractive approach to the market. Thus any acquisition proposal would need to be extremely well researched.

3. MARKETING

- The key problem for MGS, is that it has no image in the market place to speak of. It also has no reputation in the database field. However, in reality, few

other bureaux do with the possible exception of SCAN (now Scicon), EXTEL, PATASTRAM and INFOLINE (now Peragammon/Scicon).

- The key marketing objective has to be to create an image of credibility in database management, in the market place that will be seeking host service providers.

- Host opportunities will arise as follows:

  - Entrepreneurs wishing to create new services.

  - Established institutions setting up new information retrieval facilities.

  - Established database users needed to change their host facility.

- The main achievement required is to receive invitations to bid on tenders for database hosting. These invitations arise in many ways and 'getting on the lists' is a key marketing objective. To do this will involve PR, possibly advertising and making sure that MGS is included on key files within influential bodies providing advice to prospective database service providers. Such bodies include:

  - NCC

  - CCTA (Central Computer and Telecommunication Authority)

  - BIM

  - BCS (British Computer Society).

- Participation in database working committees within the computer industry is a useful source of market intelligence. MGS should also consider participating in key seminars on database matters.

- Specifically, a presentation to the CCTA should be considered as a way of registering MGS correctly within the civil service.

4. PROMOTION

- The best form of publicity is PR in the form of freely placed impartial copy about MGS activities in the database area. After this, some specific feature articles in the relevant trade and technical press are useful. Advertising will be a useful back-up activity to create greater market awareness of MGS.

5. SALES SKILLS

- The principal skills needed are the project skills of developing well planned sales proposals, presentations to prospects and negotiating contracts.

6. INVESTMENT

- A database management software package can cost in the region of £13,000 rising to £20,000 with extras (e.g. report generator). However IBM of course provides its own offering on a rental basis which is cheap by comparison with proprietary products.

- There could be substantial effort involved in designing and setting up a new database and IR service. The investment involved would depend entirely on the complexity of the database and the IR requirement.

7. PRICING/TERMS

- Pricing and terms will usually involve the two elements:

  - One time development of software

  - On going operational costs

- There may be significant prospect selling mileage to be obtained from a clear conception of how to tackle end user charging mechanics so as to minimise this problem for the database entrepreneur/owner. Similarly the mechanics of paying the owner of the database from revenues collected could be important in some selling situations. Each case will need to be considered closely in relation to customer requirements.

8. MGS STRENGTHS

- MGS has large database storage capability and can offer minimum contention for access by database users. It may be a selling advantage **not** to be supporting any other large externally used database. MGS networking skill may be exploited with advantage in certain situations.

D. USER SITE HARDWARE SERVICES

1. PRODUCT DEFINITION

- The provision of user site intelligent hardware with some file handling capability locally (e.g. discs or diskettes). Local hardware should provide interactive data entry and validation features. The user-site hardware application should be supported a complementary mainframe application. Post Office line links between the mainframe and USHS whilst not essential, are probably a feature.

2. PRODUCT DEVELOPMENT/ACQUISITION

- The two initial sector opportunities defined in Phase 4 are:

  - Mail Order
  - Construction

- USHS products are in general at an early stage of development, their Turnkey competitors being more advanced. The development of a clearly thought out role for USHS and mainframes in these application areas is key. It is likely that shell application software can be acquired for both applications. A substantial amount of development should be expected to create a properly integrated USHS service in either sector.

- A thorough review of minicomputer and top of the range microcomputer applications software should be carried out in the UK. The USA should also be researched to find potential sources of the right product base for further development or franchising (if already suitable).

3. MARKETING

- Turnkey products have two principal weaknesses:

  (a) It is difficult to provide adequate software maintenance on a radius greater than 30 miles from the software development centre.

  (b) The threshold investment is high which means a high capital or lease commitment form the outset by the client unless the supplier offers a short term rental contract. Few if any Turnkey suppliers offer true rental terms.

- MGS has the backing of a large organisation whereas most Turnkey suppliers only have on an arms length basis if at all. MGS could create a package of rental terms which would be very seductive to the first time uncommitted user. Moreover these would be backed by the credibility of the MARS name.

- The problem of remote software maintenance can be tackled centrally given downloading software maintenance and fault diagnosis capability. MGS is technically strong enough to solve this problem for itself and for clients. It is doubtful whether Turnkey operators will generally have the technical or financial muscle power to tackle this requirement.

- The correct market application strategy for USHS must be to focus on applications where initial hardware investment is minimised by providing low cost mainframe support (i.e. fast printing, special data entry (e.g. OCR) and large file storage).

- The initial USHS product opportunity proposed by INPUT is mail order. A second priority product recommended for consideration is construction industry commercial and technical data processing.

4. PROMOTION

- Both products identified are for vertical markets which are easily reached through trade associations such as BDMS (for mail order), NFBTE (National Federation of Building Trade Employees). The NFBTE in particular serves its members with advisory services through BAS (Building Advisory Services). Promotional support by means of seminar participation is an excellent and inexpensive way to identify key prospects.

- Given a substantially available product, the development of a 'sales kit' is a key method of minimising sales costs and maximising sales effectiveness. Such kits should distill the essential steps required to sell a product from the first cold call to the signing of a contract.

5. SALES SKILLS

- Sales skills must be orientated to the chosen vertical market. Good appreciation of the nature of the user's business is an essential pre-requisite for success. Thus mail order and construction industry experience should be acquired or developed.

- Familiarity with the onsite, central processing and communication element of USHS is important to give them appeal as a package.

6. INVESTMENT

- The required investment for 'shell software' could be as low as £10,000. However a really professional franchise for a product which is highly developed specifically for USHS could cost a good deal more and involve some on-going commission for each sale. The USA is probably the most likely source for such a product. Investment in MGS developed software for either market could well be in the range of £50,000 to £100,000.

7. PRICING/TERMS

- The general section on Market Strategy and Tactics (see Section III-D) provides a section on financing. This section is particularly appropriate for USHS.

8. MGS STRENGTHS

- The technical strength in real-time minicomputer systems combined with applications strengths on the mainframe side of MGS need combining for success with USHS.

E. TURNKEY SYSTEMS

1. PRODUCT DEFINITION

- The supply of free standing computers complete with required applications software which involves no other computer support.

- The priority product area defined for further consideration is Wholesale industry order processing. This product would include order entry, order validation, stock allocation, stock updating, sales ledger, invoicing, packing and despatch documentation and management information.

2. PRODUCT DEVELOPMENT/ACQUISITION

- A variety of products is available on the market already. Section III-D indicated that application software include financial accounting packages selected for DEC, TEXAS, or IBM minicomputers. If however it becomes necessary to offer a hardware product at the microcomputer level then the CPIM operating system would offer the greatest flexibility in choice of vendor hardware and applications software.

- The choice of financial accounting packages should be suitable for USHS as well as Turnkey products. Thus, any order processing, package that is from a different 'stable' than the financial accounting packages will need to be integrated with them.

- A franchised non UK developed product 'Anglicised' as necessary should be considered as an alternative to developing a product from scratch. The investment to begin again in this area would be difficult to justify and some good products already exist. The USA, France, West Germany or Sweden would be good areas to explore for the right product. DEC, TEXAS and IBM may be able to assist in this search.

3. MARKETING

- The market is already alive to Turnkey vendors. MGS could enter this market and ride on the back of other companies sales efforts. MGS would be able to sell on the strength of its name and backing.

- The choice of the Wholesale sector will need further definition. This work should be done by MGS staff as part of 'getting to know the market'.

- In general, Wholesale involves high administrative costs in the order processing area. Thus where paper cost is high in relation to product cost, opportunities are at their best. Low item value, high volume product wholesaling will be a fruitful area to research (examples include electrical components and keys).

4. PROMOTION

- Trade press and trade associations provide the most direct entry points to these markets. Industry specialised seminars can also be a good promotional method of finding prospects.

5. SALES SKILLS

- The same comments apply as for USHS (see D above). The issue of installation support skills will be important in sales negotiations.

6. INVESTMENT

- Outright acquisition of shell software for tailoring to MGS's requirements could probably be obtained fro £25,000 from a reputable source. However there may well be small Turnkey operators in financial difficulty this autumn (1980). With perceptive market intelligence, it may be possible to acquire at

low cost, the rights to a suitable product from a troubled Turnkey operator, this year.

7. PRICING/TERMS

- See Section III-D for comment on financing.

8. MGS STRENGTHS

- The mainframe applications skills combined with those of the process control team would be adequate to tackle the development customising of a basic product once selected.